Progress Energy

May 28, 2010

Ms. Jocelyn Boyd
Interim Chief Clerk and Administrator
South Carolina Public Service Commission
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.
Power Plant Performance Report
Docket No. 2006-224-E

Dear Ms. Boyd:

Enclosed is the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of April 2010.

Sincerely,

Len S. Anthony (by dhs)

Len S. Anthony
General Counsel
Progress Energy Carolinas, Inc.

LSA/dhs
Attachment
45612

c: John Flitter (ORS)

Progress Energy Service Company, LLC
P.O. Box 1551
Raleigh, NC 27602

April 2010

The following units had no off-line outages during the month of April:

Brunswick Unit 2
Harris Unit 1
Roxboro Unit 3
Roxboro Unit 4

April 2010

Brunswick Unit 1

Full Scheduled Outage

A. Duration: The unit was taken out of service at 0:02 on February 27, and was returned to service at 3:02 on April 27. The unit was offline for 627 hours and 2 minutes for the month of April. The total duration of the outage was 1,418 hours. The outage was originally scheduled to conclude at 0:00 on April 10, and was extended 411 hours and 2 minutes beyond that date. Complications with the installation of the Variable Frequency Drives (major modification on the Reactor Recirculation Pump System) was the primary driver of the extension of the refueling outage.

B. Cause: Scheduled Refueling Outage

C. Explanation: The unit was taken out of service for a scheduled refueling outage. In addition to refueling, required maintenance and inspections were carried out during this outage.

D. Corrective Action: Planned outage activities, including refueling, maintenance activities, and inspections, were completed, and the unit was returned to service.

April 2010

Robinson Unit 2

Full Forced Outage

A. Duration: The unit was taken out of service at 18:51 on March 28, and remained offline until the original scheduled refueling outage start date, which began at 0:00 on April 17. The unit was offline for 384 hours in April due to the forced outage. The total duration of the forced outage was 461 hours and 9 minutes.

B. Cause: Automatic Reactor Trip following fire associated with 4-kV power supply to non-vital bus 5.

C. Explanation: The initiating event was an electrical fault to ground at a cable conduit connection to 4-kV bus 5 that propagated to a second conduit at a 90-degree bend above the bus 5 switchgear in the turbine building. The tie breaker from 4-kV bus 4 to this bus did not open, resulting in a lowered voltage on the connected buses and causing lowered reactor coolant pump (RCP) flow in one of the RCS loops, which initiated the automatic scram.

D. Corrective Action: Investigations were conducted to determine the cause of the fire, assess damage, and begin repairs. The unit was scheduled to begin a refueling outage on April 17. After initial damage assessment, the unit transitioned into the scheduled (April 17) refueling outage activities approximately ten days ahead of the April 17 scheduled start date. The unit remained offline as it transitioned into its planned refueling outage activities.

Full Scheduled Outage

A. Duration: At 0:00 on April 17, the original outage start date, the unit was considered to be in its planned refueling outage, and was offline for the remainder of the month. The unit was offline for 336 hours during the month of April for the planned refueling outage.

B. Cause: Scheduled Refueling Outage

C. Explanation: Following the automatic reactor trip, the unit transitioned to a scheduled refueling outage. In addition to refueling, required maintenance and inspections are being carried out.

D. Corrective Action: Planned outage activities, including refueling, inspections, repairs to the 4-kV busses and electrical components damaged by the fire, and other maintenance activities, were in progress at the end of April.

April 2010

Mayo Unit 1

Full Scheduled Outage

A. Duration: The unit was taken out of service at 8:20 on April 3, and was returned to service at 15:30 on April 16, a duration of 319 hours and 10 minutes.

B. Cause: Boiler Inspection Outage

C. Explanation: The unit was taken out of service for a planned boiler inspection.

D. Corrective Action: Planned outage activities, including boiler inspection, periodic, preventative, and corrective maintenance, were completed, and the unit was returned to service.

April 2010

Roxboro Unit 2

Full Scheduled Outage

A. Duration: The unit was taken out of service at 0:04 on March 20, and remained offline for the remainder of the month. The unit was offline for a duration of 720 hours during the month of April.

B. Cause: Boiler Inspection and Turbine Outage

C. Explanation: The unit was taken out of service for a planned boiler inspection and turbine outage.

D. Corrective Action: Planned outage activities were in progress at the end of April.

	Month of April 2010		Twelve Month Summary		See Notes*
MDC	975	MW	950	MW	1
Period Hours	720	HOURS	8,760	HOURS	
Net Generation	43,331	MWH	6,586,522	MWH	2
Capacity Factor	6.17	%	79.12	%	
Equivalent Availability	6.82	%	79.31	%	
Output Factor	47.80	%	97.95	%	
Heat Rate	12,232	BTU/KWH	10,492	BTU/KWH	

	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	611,357	87.09	1,382,550	16.61	3
Partial Scheduled	42,764	6.09	87,556	1.05	4
Full Forced	0	0.00	249,696	3.00	5
Partial Forced	4,547	0.65	83,853	1.01	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	702,000		8,324,920		8

* See 'Notes for Nuclear Units' filed with the January 2010 report.
** Gross of Power Agency

	Month of April 2010		Twelve Month Summary		See Notes*
MDC	953	MW	931	MW	1
Period Hours	720	HOURS	8,760	HOURS	
Net Generation	678,802	MWH	7,669,938	MWH	2
Capacity Factor	98.93	%	94.05	%	
Equivalent Availability	99.95	%	93.15	%	
Output Factor	98.93	%	98.14	%	
Heat Rate	10,552	BTU/KWH	10,609	BTU/KWH	

	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	107,101	1.31	3
Partial Scheduled	0	0.00	36,069	0.44	4
Full Forced	0	0.00	232,840	2.85	5
Partial Forced	7,358	1.07	203,670	2.50	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	686,160		8,155,560		8

* See 'Notes for Nuclear Units' filed with the January 2010 report.
** Gross of Power Agency

	Month of April 2010		Twelve Month Summary		See Notes*
MDC	936	MW	912	MW	1
Period Hours	720	HOURS	8,760	HOURS	
Net Generation	666,054	MWH	7,738,484	MWH	2
Capacity Factor	98.83	%	96.86	%	
Equivalent Availability	99.56	%	95.48	%	
Output Factor	98.83	%	100.97	%	
Heat Rate	10,697	BTU/KWH	10,687	BTU/KWH	

	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	214,470	2.68	3
Partial Scheduled	2,967	0.44	29,693	0.37	4
Full Forced	0	0.00	105,870	1.33	5
Partial Forced	4,899	0.73	11,640	0.15	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	673,920		7,989,120		8

* See 'Notes for Nuclear Units' filed with the January 2010 report.
** Gross of Power Agency

	Month of April 2010		Twelve Month Summary		See Notes*
MDC	758	MW	726	MW	1
Period Hours	720	HOURS	8,760	HOURS	
Net Generation	-2,232	MWH	5,906,506	MWH	2
Capacity Factor	0.00	%	92.87	%	
Equivalent Availability	0.00	%	90.12	%	
Output Factor	0.00	%	102.75	%	
Heat Rate	0	BTU/KWH	10,680	BTU/KWH	

	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	254,688	46.67	254,688	4.00	3
Partial Scheduled	0	0.00	6,002	0.09	4
Full Forced	291,072	53.33	381,596	6.00	5
Partial Forced	0	0.00	10,254	0.16	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	545,760		6,359,760		8

* See 'Notes for Nuclear Units' filed with the January 2010 report.

	Month of April 2010		Twelve Month Summary		See Notes*
MDC	726	MW	737	MW	1
Period Hours	720	HOURS	8,760	HOURS	
Net Generation	216,869	MWH	4,526,661	MWH	2
Capacity Factor	41.49	%	70.14	%	
Equivalent Availability	53.29	%	94.96	%	
Output Factor	74.52	%	75.55	%	
Heat Rate	10,171	BTU/KWH	10,638	BTU/KWH	

	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	231,715	44.33	231,715	3.59	3
Partial Scheduled	12,015	2.30	37,725	0.58	4
Full Forced	0	0.00	16,188	0.25	5
Partial Forced	426	0.08	36,488	0.57	6
Economic Dispatch	61,694	11.80	1,605,078	24.87	7
Possible MWH	522,720		6,453,200		8

* See 'Notes for Fossil Units' filed with the January 2010 report.
** Gross of Power Agency

	Month of April 2010		Twelve Month Summary		See Notes*
MDC	671	MW	665	MW	1
Period Hours	720	HOURS	8,760	HOURS	
Net Generation	-1,075	MWH	3,893,484	MWH	2
Capacity Factor	0.00	%	66.84	%	
Equivalent Availability	0.00	%	77.87	%	
Output Factor	0.00	%	84.32	%	
Heat Rate	0	BTU/KWH	8,951	BTU/KWH	

	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	483,120	100.00	1,000,825	17.18	3
Partial Scheduled	0	0.00	40,282	0.69	4
Full Forced	0	0.00	185,607	3.19	5
Partial Forced	0	0.00	66,527	1.14	6
Economic Dispatch	0	0.00	637,232	10.94	7
Possible MWH	483,120		5,825,400		8

* See 'Notes for Fossil Units' filed with the January 2010 report.

	Month of April 2010		Twelve Month Summary		See Notes*
MDC	698	MW	696	MW	1
Period Hours	720	HOURS	8,760	HOURS	
Net Generation	446,715	MWH	4,011,483	MWH	2
Capacity Factor	88.89	%	65.80	%	
Equivalent Availability	100.00	%	93.07	%	
Output Factor	88.89	%	69.95	%	
Heat Rate	10,705	BTU/KWH	10,924	BTU/KWH	

	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	362,106	5.94	3
Partial Scheduled	0	0.00	3,005	0.05	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	0	0.00	56,600	0.93	6
Economic Dispatch	55,845	11.11	1,663,643	27.29	7
Possible MWH	502,560		6,096,960		8

* See 'Notes for Fossil Units' filed with the January 2010 report.

	Month of April 2010		Twelve Month Summary		See Notes*
MDC	711	MW	702	MW	1
Period Hours	720	HOURS	8,760	HOURS	
Net Generation	369,818	MWH	4,582,847	MWH	2
Capacity Factor	72.24	%	74.49	%	
Equivalent Availability	93.62	%	96.70	%	
Output Factor	72.24	%	75.95	%	
Heat Rate	11,720	BTU/KWH	11,916	BTU/KWH	

	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	75,350	1.22	3
Partial Scheduled	32,684	6.38	71,196	1.16	4
Full Forced	0	0.00	5,596	0.09	5
Partial Forced	0	0.00	50,978	0.83	6
Economic Dispatch	109,418	21.37	1,365,940	22.20	7
Possible MWH	511,920		6,152,440		8

* See 'Notes for Fossil Units' filed with the January 2010 report.
** Gross of Power Agency

Run Date 5/19/2010

Plant	Unit	Current MW Rating	January 2009 - December 2009	April 2010	January 2010 - April 2010
Asheville	1	196	70.87	84.74	76.65
Asheville	2	187	59.45	61.16	69.85
Cape Fear	5	148	63.73	63.39	77.01
Cape Fear	6	175	62.21	60.20	74.85
Lee	1	80	50.63	75.16	76.65
Lee	2	80	41.80	55.00	60.81
Lee	3	257	58.82	74.28	76.95
Mayo	1	726	62.45	41.49	75.23
Robinson	1	179	61.18	82.28	76.31
Roxboro	1	374	79.40	75.15	83.18
Roxboro	2	671	73.67	0.00	59.26
Roxboro	3	698	62.76	88.89	81.91
Roxboro	4	711	71.40	72.24	77.60
Sutton	1	98	39.14	53.15	57.19
Sutton	2	107	44.65	62.46	61.95
Sutton	3	411	48.01	69.49	62.23
Weatherspoon	1	49	13.92	52.55	50.58
Weatherspoon	2	49	14.93	49.51	37.58
Weatherspoon	3	79	23.59	65.34	67.57
Fossil System Total		5,275	62.52	59.58	72.48
Brunswick	1	975	97.67	6.17	46.64
Brunswick	2	953	79.50	98.93	93.64
Harris	1	936	93.90	98.83	99.62
Robinson Nuclear	2	758	104.08	0.00	72.68
Nuclear System Total		3,622	93.18	53.15	78.15
Total System		8,897	74.79	56.96	74.79

Amended SC Fuel Rule
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of ≥ 92.5% during the 12 month period under review. For the test period March 1, 2010 through April 30, 2010, actual period to date performance is summarized below:

Period to Date: March 1, 2010 to April 30, 2010

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period	A =	3,284,930 MWH
B. Total number of hours during SCPSC test period	B =	1,463 hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C =	3,482 MW
D. Reasonable nuclear system reductions (see page 2)	D =	1,992,008 MWH

A. SC Fuel Case nuclear system capacity factor: [(A + D) / (B + C)] * 100 = 103.6%

NOTE:
If Line Item E > 92.5%, presumption of utility's minimum cost of operation.
If Line Item E < 92.5%, utility has burden of proof of reasonable operations.

Amended SC Fuel Rule
Nuclear System Capacity Factor Calculation
Reasonable Nuclear System Reductions
Period to Date: March 1, 2010 to April 30, 2010

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	920 MW	900 MW	724 MW	3,482 MW
Reasonable refueling outage time (MWH)	1,335,783	0	0	254,688	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	0	603	2,368	349,552	
Reasonable coast down power reductions (MWH)	0	0	0	0	
Reasonable power ascension power reductions (MWH)	42,765	0	0	0	
Prudent NRC required testing outages (MWH)	0	5,650	599	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	0	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	1,378,548	6,253	2,967	604,240	
Total reasonable outage time exclusions [carry to Page 1, Line D]					1,992,008